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**ZERA**

**MT10**  
**Product Catalogue**

Doc.No: 100352709  
Version from: 01.01.2023

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## Device



### MT10 Single Phase Reference Meter CATIII

Inclusive adjustment for one mains frequency.

Ord.No.

101073301

*MT10* is light weight and Compact Reference Meter for on-site verification and calibration of single phase domestic meters.

Test voltage for the Compact Reference Meter will be measured at the mains on site. Test current must be measured via current clamp (option).

*MT10* is designed for testing of max. 1 test specimen.

#### Configuration:

- Direct current measurement up to 300 V / -- A \*
- Accuracy for power/energy measurement:  $< \pm 0.2 \%$  by using of MT3461 current clamp type
- Power supply via external unit
- Rechargeable battery operation (optional)

\* Current measurements only via current clamp



### MT10 Single Phase Reference Meter CAT IV

Inclusive adjustment for one mains frequency.

Ord.No.

101073401

*MT10* is light weight and Compact Reference Meter for on-site verification and calibration of single phase domestic meters.

Test voltage for the Compact Reference Meter will be measured at the mains on site. Test current must be measured via current clamp (option).

*MT10* is designed for testing of max. 1 test specimen.

#### Configuration:

- Direct current measurement up to 300 V / -- A \*
- Voltage input designed for protection class **CATIV**
- Accuracy for power/energy measurement:  $< \pm 0.2 \%$  by using of MT3461 current clamp type
- Power supply via external unit
- Rechargeable battery operation (optional)

\* Current measurements only via current clamp

## Factory Calibration for New Instrument



**Factory Calibration for NEW MT10, 50 Hz**  
incl. ZERA calibration report.

Ord.No. **100519715**

*This article applies only for a purchase of new device.*

**Load points according to ZERA regulations.**  
Summary of used load points  
can be downloaded at [www.zera.de](http://www.zera.de).

Additional load points are subject to charges.



**Factory Calibration for NEW MT10**  
**incl. current clamp MT3461, 50 Hz**  
incl. ZERA calibration report.

Ord.No. **100890845**

*This article applies only for a purchase of new device.*

**Load points according to ZERA regulations.**  
Summary of used load points  
can be downloaded at [www.zera.de](http://www.zera.de).

Additional load points are subject to charges.



**Factory Calibration for NEW MT10, 60 Hz**  
incl. ZERA calibration report.

Ord.No. **100519717**

*This article applies only for a purchase of new device.*

**Load points according to ZERA regulations.**  
Summary of used load points  
can be downloaded at [www.zera.de](http://www.zera.de).

Additional load points are subject to charges.



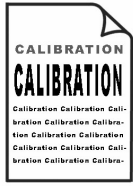
**Factory Calibration for NEW MT10**  
**incl. current clamp MT3461, 60 Hz**  
incl. ZERA calibration report.

Ord.No. **100890846**

*This article applies only for a purchase of new device.*

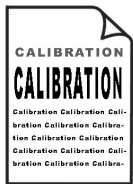
**Load points according to ZERA regulations.**  
Summary of used load points  
can be downloaded at [www.zera.de](http://www.zera.de).

Additional load points are subject to charges.



**Factory Calibration  
for instrument, each additional  
load point for power and energy**

Ord.No. **100007093**



**Factory Calibration  
for instrument, each additional  
load point for current and/or voltage**

Ord.No. **100007094**

**DAkKS DKD-Calibration for Instrument**



**DAkKS DKD-Calibration for MT10, 50 Hz**  
incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No. **100519614**

**Load points according to ZERA regulations.**  
Summary of used load points  
can be downloaded at [www.zera.de](http://www.zera.de).

Additional load points are subject to charges.



**DAkKS DKD-Calibration for MT10  
incl. current clamp MT3461, 50 Hz**  
incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No. **101173914**

**Load points according to ZERA regulations.**  
Summary of used load points  
can be downloaded at [www.zera.de](http://www.zera.de).

Additional load points are subject to charges.

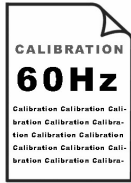


**DAkKS DKD-Calibration of MT10, 60 Hz**  
incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No. **100519616**

**Load points according to ZERA regulations.**  
Summary of used load points  
can be downloaded at [www.zera.de](http://www.zera.de).

Additional load points are subject to charges.

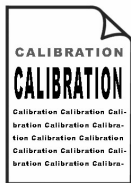


**DAkKS DKD-Calibration for MT10  
incl. current clamp MT3461, 60 Hz**  
incl. DKD-Calibration Certificate acc. IEC 17025

Ord.No. **101173915**

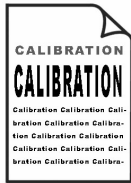
**Load points according to ZERA regulations.**  
Summary of used load points  
can be downloaded at [www.zera.de](http://www.zera.de).

Additional load points are subject to charges.



**DAkKS DKD-Calibration (acc. IEC 17025)  
for instrument, each additional  
load point for power and energy**

Ord.No. **100006893**



**DAkKS DKD-Calibration (acc. IEC 17025)  
for instrument, each additional  
load point for current / voltage**

Ord.No. **100006894**

## Power Cords



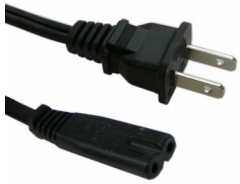
**AC Power Supply for MT10/30**  
to operate and recharge internal batteries.  
Input voltage 90...264 VAC  
Output voltage 16 VDC  
AC power cord for mains has to be  
ordered separately.

Ord.No. **100307130**



**AC Power Supply for MT10/30 with fuse**  
to operate and recharge internal batteries.  
Input voltage 90...264 VAC  
Output voltage 16 VDC  
In case of overvoltage connection power supply will  
be protected by internal security circuit and fuse.  
Fuse rating: 1,6 A / 440 V  
AC power cord for mains and spare fuses has to  
be ordered separately.

Ord.No. **101097300**

**Fuse, 1.6 A / 440 V, 6.3 mm x 32 mm, time-lag**Ord.No. **m00460183****Power cord "Plug type A to figure-of-eight", 2.0 m**Ord.No. **100277201**

For supply via mains supply.

- 1x Plug type A
- 1x Figure-of-eight socket (IEC 60320-1 C7)

**Power cord "Euro plug type C to figure-of-eight", 2.0 m**Ord.No. **100067700**

For supply via mains supply.

- 1x Euro plug type C (CEE 7/16)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

**Power cord "Plug type G to figure-of-eight", 2.0 m**Ord.No. **100277200**

For supply via mains supply.

- 1x Plug type G (BS1363)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

**Power cord "Plug type I to figure-of-eight", 2.0 m**Ord.No. **100277202**

For supply via mains supply.

- 1x Plug type I (AS/NZS 3112, 2-pin)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

## Battery Pack and Accessories



### Power cord "stackable safety plug (black) to figure-of-eight", 2.0 m

For supply via test voltage.

- 2x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve (2x black)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No.

100067608

## Current Clamps (see also Special Accessories)



### MT3461, AC current clamp 120 A

Electronically compensated, calibration independent from the instrument.

- Clamping diameter: 16 mm
- Output: D-Sub plug 25-pin
- Measuring range: 5 mA ... 120 A
- Error of measurement:
  - <  $\pm 0.15\%$  / <  $0.1^\circ$  (500 mA ... 120 A)
  - <  $\pm 0.3\%$  / <  $0.1^\circ$  (100 mA ... 500 mA)
  - <  $\pm 0.6\%$  / <  $0.1^\circ$  (25 mA ... 50 mA)
- Frequency range: 45 ... 65 Hz
- Measuring Category: CAT IV 300 V /CAT III 600 V

Ord.No.

101241502

## Current and Voltage Cables (see also Special Accessories)



### Laboratory cable with stackable plug, red, 2.0 m

Measurement category III (CAT III).

- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

Ord.No.

X00007597



### Laboratory cable with stackable plug, black, 2.0 m

Measurement category III (CAT III).

- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

Ord.No.

X00006910



**CAT IV Laboratory cable max. 12 A, 2.0 m**

- 2x 4 mm plugs (non-stackable) with rigid insulating sleeve
- Lead cross section: 1 qmm
- Phase colours: Please specify the colour code when ordering

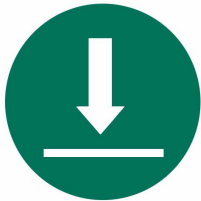
The cables will get a corresponding coloured marking.

**20=black-white, 21=black, 22=red, 23=blue, 24= yellow, 25=green, 26=violet, 27=brown, 28=grey, 29=white**

Ord.No. **1014308xx**

xx please select the colour

**Software**



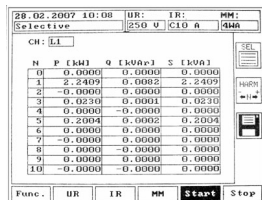
**Software SSM3000 / MTVis**

The software runs under Windows 7 or 10.

- SSM3000: For external control via PC.
- MTVis: To readout and display saved data.

The software can be downloaded at [www.zera.de](http://www.zera.de).

Ord.No. **100090720**



**Software option for selective power measurement, MT10 / MT30**

3 additional measuring modes for only fundamental power in 4W active, 4W reactive and 4W apparent are available

Ord.No. **100078811**

**Impulse Sensor (see also Special Accessories)**



**ZZ8636 Start-stop pushbutton for signal entry**

The start-stop pushbutton is used for manual signal entry when testing electricity meters.

Ord.No. **101091620**



**TK118, scanning head**

For detection of LED signals of electronic meters.

- Fixing: Via provided suction cup or via optionally available stretchable holding device for scanning heads TK326/TK118.

Ord.No. **100201900**





### TK326-1, scanning head without holding device

For detection of rotor disc markings on Ferraris meters and LED signals on electronic meters.

- Fixing: Via stretchable holding device for scanning heads TK326/TK118.

Ord.No. **101064901**



### Holding device for scanning head TK326/ TK118

Stretchable holding device to fix the scanning head TK326 or TK118 at the electricity meter.

- Maximum wingspan: 19.0 cm.

Ord.No. **100319600**



### K121, S0 pulse converter with measuring leads

For pulse detection of floating contacts as well as of S0 pulse output on electricity meters. Including two laboratory cables with safety plug/connection pin.

Ord.No. **100004210**



### Connection cable for scanning head input (SC) on ZERA instruments with RJ10 socket

The spiral cable connects TKxxx and K121 to the instrument.

- 2x Modular connector RJ10
- Length: 1.00 m / expanded: 6.00 m

Ord.No. **Z10353027**

## Connectors (see also Special Accessories)



### Accessories bag with connection adapters

- 1x Accessories bag (100214400)
- 1x Spring clip (100606750)
- 2x 4 mm plug adapter (banana plug) (X00004962)
- 2x Adapter for terminal blocks (101584400)
- 1x 4 mm test clips (crocodile clips), slim (X00009329)
- 1x 4 mm test clips (crocodile clips), wide (X00010059)

Ord.No. **100023725**

## Transport (see also Special Accessories)



### Transport Case for MT10 / MT30, large

Aluminum case with inlet from rigid foam, designed for

- 1 Instrument
- Accessories

Overall dimensions: 47 cm x 53,5 cm x 18 cm (H x W x D)

*Please clarify whether the case size is suitable for the ordered accessories.*

Ord.No. **100023990**



### Transport Case for MT10 / MT30, Standard

Aluminum case with inlet from rigid foam, designed for

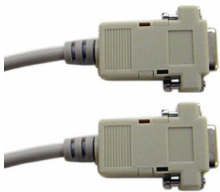
- 1 Instrument
- Accessories

Overall dimensions: 36 cm x 45 cm x 17 cm (H x W x D)

*Please clarify whether the case size is suitable for the ordered accessories.*

Ord.No. **100023981**

## Standard Accessories (see also Special Accessories)



### Interface cable, RS232, crossed wired (null modem cable)

Connection cable

- 2x D-Sub socket, 9-pin
- Cable length: 3.00 m

Ord.No. **X00010844**



### Li-Ion Battery, set of 3 (M00400491)

- 3,7 V/2200 mAh

Ord.No. **100619500**

**Please remark that Li-Ion batteries are classified as “Dangerous Good for Shipment”. Sending Li-Ion batteries as spare part by air requires a lot of strict security procedures. Therefore, ZERA can only offer this spare part batteries as EXW (Incoterms). The purchaser will be responsible for the transportation.**

## Documentation



Complete documentation as pdf files on USB Stick

Ord.No. **100090716**

## Special Accessories

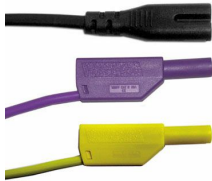


**Power cord “stackable safety plug (black/yellow) to figure-of-eight”, 2.0 m**

For supply via test voltage.

- 2x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve (1x black; 1x yellow)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No. **100067601**



**Power cord “stackable safety plug (violet/yellow) to figure-of-eight”, 2.0 m**

For supply via test voltage.

- 2x stackable, spring-loaded 4 mm plugs with rigid insulating sleeve (1x violet/1x yellow)
- 1x Figure-of-eight socket (IEC 60320-1 C7)

Ord.No. **100067602**

## Special Accessories (Current and Voltage Cables)



**Laboratory cable with stackable plug, green, 2.0 m**  
Measurement category III (CAT III).

- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

Ord.No. **X00006908**



**Laboratory cable with stackable plug, violet, 2.0 m**  
Measurement category III (CAT III).

- 2x stackable 4 mm plugs with rigid insulating sleeve
- Lead cross section: 2.5 qmm

Ord.No. **X00006909**



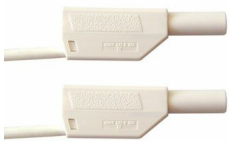
- Laboratory cable with stackable plug, brown, 2.0 m**  
 Measurement category III (CAT III).
- 2x stackable 4 mm plugs with rigid insulating sleeve
  - Lead cross section: 2.5 qmm

Ord.No. **100414100**



- Laboratory cable with stackable plug, grey, 2.0 m**  
 Measurement category III (CAT III).
- 2x stackable 4 mm plugs with rigid insulating sleeve
  - Lead cross section: 2.5 qmm

Ord.No. **100739800**



- Laboratory cable with stackable plug, white, 2.0 m**  
 Measurement category III (CAT III).
- 2x stackable 4 mm plugs with rigid insulating sleeve
  - Lead cross section: 2.5 qmm

Ord.No. **100662500**



- Laboratory cable with stackable plug, yellow, 2.0 m**  
 Measurement category III (CAT III).
- 2x stackable 4 mm plugs with rigid insulating sleeve
  - Lead cross section: 2.5 qmm

Ord.No. **X00006907**



- Laboratory cable with stackable plug, blue, 2.0 m**  
 Measurement category III (CAT III).
- 2x stackable 4 mm plugs with rigid insulating sleeve
  - Lead cross section: 2.5 qmm

Ord.No. **X00007598**

## Special Accessories (Connectors)



### Connecting terminals for current

- Insulating screw joint for flexible wire connection max cable size 1,5 ... 16 mm<sup>2</sup>
- Socket: 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **X00011923**



### Adapter for terminal blocks

- Connection via insulated flexible copper conductor.
- Socket: 4 mm rigid socket in insulator, made of brass, accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **X00004961**



### 4 mm plug adapter (banana plug)

- Plug: 4 mm spring-loaded plug, made of brass.
- Socket: 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **X00004962**



### 4 mm cable lug adapters

- Cable lug adapter, made of brass for permanent installation, e. g. for connecting screw terminals.
- Socket: 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **X00004963**



### Spring clip

- Connection via spring clip.
- Socket: spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **100606750**



#### Test plugs for terminal blocks

- Plug: 4 mm test plug, made of brass with spring-loaded plug for connecting into rail mounted terminals with 4 mm sockets.
- Socket: 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **100102400**



#### 4 mm test clips (crocodile clips), wide

- Crocodile clip made of brass with all-round insulation. Toothed jaws for wide grip with surface for fine wire.
- Socket: 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **X00010059**



#### 4 mm test clips (crocodile clips), slim

- Small, slim crocodile clip made of brass with all-round insulation. Toothed jaws for wide grip with surface for fine wire.
- 4 mm rigid socket in insulator accepting spring-loaded 4 mm plugs with rigid insulating sleeve.

Ord.No. **X00009329**



#### Accessories bag without content

DIN A6, material: polypropylene

Ord.No. **100214400**

### Special Accessories (Transport)



#### Carrying strap for reference meter, black, width 25 mm

Belt length: 700 - 1,400 mm, adjustable by sliding buckle, metal snap hooks on both sides.

Ord.No. **100170000**

**Special Accessories (General)**



**Adapter "USB to RS232" (32/64 bit), 1.5 m**  
 For use with an external PC/Notebook (32/64 bit) with WINDOWS OS (7, 8, 10).

Ord.No. **101421801**



**Temperature sensor MT3450**  
 Temperature sensor can be used for measuring of the ambient temperature on site.  
 The temperature value will be displayed and stored inside the MT device  
 Temperature range: -20° C ... +60° C (± 1° C)  
 Resolution: 0,1° C  
 Cable length: 3 m

Ord.No. **100904000**

**Readjustment (only for Service)**



**Adjustment of MT10**

*Note:* Calibration and Calibration report are not included.

Ord.No. **100033857**

**Factory Calibration (only for Service)**



**Factory Calibration for MT10, 50 Hz**  
 incl. ZERA calibration report.

Ord.No. **100519714**

**Load points according to ZERA regulations.**  
 Summary of used load points can be downloaded at [www.zera.de](http://www.zera.de).

Additional load points are subject to charges.



**Factory Calibration for MT10 incl. current clamp MT3461, 50 Hz**  
 incl. ZERA calibration report.

Ord.No. **100890849**

**Load points according to ZERA regulations.**  
 Summary of used load points can be downloaded at [www.zera.de](http://www.zera.de).

Additional load points are subject to charges.



**Factory Calibration for MT10, 60 Hz**  
incl. ZERA calibration report.

Ord.No. **100519716**

**Load points according to ZERA regulations.**  
Summary of used load points  
can be downloaded at [www.zera.de](http://www.zera.de).

Additional load points are subject to charges.

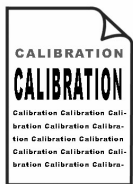


**Factory Calibration for MT10 incl. current clamp  
MT3461, 60 Hz**  
incl. ZERA calibration report.

Ord.No. **100890850**

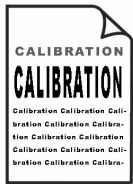
**Load points according to ZERA regulations.**  
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**Factory Calibration  
for instrument, each additional  
load point for power and energy**

Ord.No. **100007093**



**Factory Calibration  
for instrument, each additional  
load point for current and/or voltage**

Ord.No. **100007094**



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## Notes on using the product catalogue

When ordering, always state the order number.

Pictures can differ from original product.

We follow ZVEI terms of delivery, see on [www.zera.de](http://www.zera.de)